CLAIMS

1.   A cold die steel excellent in characteristics of suppressing dimensional change, including, by mass%,

carbon (C): 0.7% or more and less than 1.6%,

silicon (Si): 0.5 to 3.0%,

manganese (Mn): 0.1 to 3.0%,

phosphor (P): less than 0.05% including 0%,

sulfur (S): 0.01 to 0.12%,

chromium (Cr): 7.0 to 13.0%,

one or two elements selected from the group consisting of molybdenum (Mo) and tungsten (W): amounts satisfying the formula: $(Mo + (W/2)) = 0.5$ to 1.7%,

vanadium (V): less than 0.7% including 0%,

nickel (Ni): 0.3 to 1.5%,

cupper (Cu): 0.1 to 1.0%, and

aluminum (Al): 0.1 to 0.7%.

2.   The cold die steel according to claim 1, wherein amounts of nickel and aluminum satisfy the formula by mass%: $Ni/Al = 1$ to 3.7.

3.   The cold die steel according to claim 1, wherein amounts of chromium and carbon satisfy the formulas by mass%: $(Cr - 4.2 \times C) = 5$ or less, and $(Cr - 6.3 \times C) = 1.4$ or more.

4.   The cold die steel according to claim 1, wherein the steel further includes, by mass%, 0.3% or less excluding 0% of columbium (Nb).

5.   A cold die steel excellent in characteristics of suppressing dimensional change including, by mass%,

carbon (C): 0.7% or more and less than 1.6%,

silicon (Si): 0.5 to 3.0%,

manganese (Mn): 0.1 to 3.0%,

phosphor (P): less than 0.05% including 0%,

sulfur (S): 0.01 to 0.12%,

chromium (Cr): 7.0 to 13.0%,

one or two elements selected from the group consisting of molybdenum (Mo) and tungsten (W): amounts satisfying the formula: (Mo + (W/2)) = 0.5 to 1.7%,

vanadium (V): less than 0.7% including 0%,

nickel (Ni): 0.3 to 1.5%,

cupper (Cu): 0.1 to 1.0%,

aluminum (Al): 0.1 to 0.7%, and

columbium (Nb): 0.3% or less excluding 0%,

wherein amounts of nickel and aluminum satisfy the formula: Ni/Al = 1 to 3.7, and

wherein amounts of chromium and carbon satisfy the formulas: (Cr - 4.2 × C) = 5 or less, and (Cr - 6.3 × C) = 1.4 or more.